

ABSTRACT OF THE DISCLOSURE

The present invention provides a method for creating a frozen tissue array. An oil in a liquid form is added into a recipient block containing frozen tissue cores where the oil has a freezing point lower than the freezing point of the tissue cores; and the recipient block containing the oil is cooled to a temperature about equal to or below the freezing point of the oil; the subsequently frozen oil locks the frozen cores in the recipient block. The oil may also be added to the recipient block prior to inserting the frozen tissue cores. The recipient block may be formed using a cryoarray device comprising a mold plate, an ejector plate, mold alignment pins, ejector pins, and cryoarray pins. Such method may be used for preparing frozen sections with multiple tissue specimens for assays such as *in-situ* hybridization and immunohistochemistry.